



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/778,558	02/07/2001	Pang-Chia Lu	10251	4395

23455 7590 11/05/2003

EXXONMOBIL CHEMICAL COMPANY
P O BOX 2149
BAYTOWN, TX 77522-2149

EXAMINER

DICUS, TAMRA

ART UNIT PAPER NUMBER

1774

DATE MAILED: 11/05/2003

17

Please find below and/or attached an Office communication concerning this application or proceeding.

CLO-17

Office Action Summary

Application No.

09/778,558

Applicant(s)

LU ET AL.

Examiner

Tamra L. Dicus

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8-21-03
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The 103(a) rejection over Newberry et al., USPN 6,087,079 in view of Schleinz et al., USPN 5,458,590 is maintained and in a prior office action dated Nov. 4, 2002, Paper No. 9.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over US PUBLICATION 2001/0016248 A1 to Alderfer et al. in view of USPN 6,379,780 to Laney et al.

Alderfer teaches a printing sheet comprising an extruded microporous film having a meshed network of interconnecting porous from 35 to 95 percent void volume (content) containing HDPE at [0003]-[0005]. The sheet has a coating on it and comprises calcium carbonate joined to at least one side of the microporous material at [003], [0022], [0024], and [0051]. The sheet is suited for ink jet printing, which means the method for applying ink to such a sheet is taught. See [0002]. That the film is porous from one surface to the other surface is inherent to a microporous sheet.

That the film is treated with plasma is a process limitation in a product claim. Product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps. Patentability of an article depends on the article itself and not the method

Art Unit: 1774

used to produce it (see MPEP 2113). Furthermore, the invention defined by a product-by-process invention is a product NOT a process. *In re Bridgeford*, 357 F. 2d 679. It is the patentability of the product claimed and NOT of the recited process steps which must be established. *In re Brown*, 459 F. 2d 531.

Alderfer does not teach *per se* the interconnecting voids have “an open celled structure”. However, Laney teaches a permeable surface imaging support containing microbeads with a void space of at least 40% having interconnected or open-celled structure (equivalent to ink-receiving porous open-celled structured void layer) at col. 11, lines 6-13 for the purpose of providing improved ink absorption (same reason as Applicant). Hence, it would have been obvious to one of ordinary skill in the art to modify the sheet of Alderfer to include open cells in voids for the purpose of improving ink absorption as taught by Laney.

3. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,087,079 to Newberry et al. in view of USPN 5,458,590 to Schleinz et al. and USPN 6,379,780 to Laney.

4. Newberry shows a photographic imaging element comprising a paper substrate and at least two extruded biaxially oriented HDPE sheets which comprise a core layer, surface layer, and skin layers (core, extruded and skin layers) (instant claim 6 see Abstract). Newberry further shows an image layer (coating layer) comprising gelatin and PVA which is coated on the imaging element (col. 13, lines 5-26). Newberry shows that calcium carbonate particles are added to the layers of the imaging element (col. 5, line 30 – col. 6, line 20). Newberry shows that the sheets are treated with plasma to improve printability or adhesion (col. 6, lines 53-63). Newberry shows voids (pores) in the HDPE sheets wherein the voids are oriented so that there is

Art Unit: 1774

alignment with the machine and transverse and machine directions of the sheet (col. 4, lines 20-37), which is equivalent to the voids being porous in a direction perpendicular to the plane of the film the film is porous from one surface to the other surface and is in a direction perpendicular to the plane of the film. Newberry further shows a nonvoided skin layer (nonporous) at col. 5, lines 66-67. Newberry shows that ink can be applied to the imaging element via ink jet printing (col. 13, lines 5-25).

While Newberry teaches voids are generally closed celled, Newberry does not say that voids could not be open celled. Nevertheless, Laney teaches a permeable surface imaging support containing microbeads in an ink receiving layer with a void space of at least 40% having interconnected or open-celled structure at col. 11, lines 6-13 for the purpose of providing improved ink absorption (same reason as Applicant). Hence, it would have been obvious to one of ordinary skill in the art to modify the sheet of Newberry to include open cells in voids for the purpose of improving ink absorption as taught by Laney.

5. That the film is treated with plasma is a process limitation in a product claim. Product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps. Patentability of an article depends on the article itself and not the method used to produce it (see MPEP 2113). Furthermore, the invention defined by a product-by-process invention is a product NOT a process. *In re Bridgeford*, 357 F. 2d 679. It is the patentability of the product claimed and NOT of the recited process steps which must be established. *In re Brown*, 459 F. 2d 531. Moreover, Newberry shows the process of treating the sheet with a plasma treatment.

Art Unit: 1774

6. Newberry does not show HDPE fibers in the imaging element as in instant claims 1 and 6. Schleinz shows an ink-printed fibrous laminate web comprising fibers of HDPE which are extruded into films (col. 7, line 18-col. 8, line 9). Schleinz further shows that the laminate web is printed with water-based ink jet printing ink (col. 4, lines 58-65) (claim 10). Thus, it would have been obvious to one of ordinary skill in the art to include the HDPE fibers in the layers of Newberry because it is known, as shown by Schleinz, that HDPE fibers are useful for its mechanical and chemical strength and good printing characteristics for use with water-based ink jet printing (col. 4, lines 58-65).
7. Regarding claim 3, that the film is laminated "on an outer surface of the film opposite said coating layer (b)," Newberry shows that the arrangement of the lamination is substrate/extruded film layer/coating layer (Abstract and claim 6).

Response to Arguments

Applicant's arguments filed 8-21-03 have been fully considered but they are not persuasive.

Applicant alleges Alderfer's ink-receptive layer (b) is not porous nor does it have an open-cell structure. The Examiner did not use Alderfer to teach this property, but Laney. Laney teaches a porous ink-receptive layer having an open-cell structure with interconnecting voids, as shown in col. 3, lines 10-14. The Applicant allege's Alderfer's ink-receptive layer (b) does not comprise calcium carbonate. The Examiner did not teach Alderfer's (b) not comprising calcium carbonate. The claim does not call for (b) having calcium carbonate, but the instant claim 2 calls for calcium carbonate to be in (a), as provided by Alderfer. The Applicant further alleges Aldefer does not teach (a) being porous having interconnecting voids and an open-cell structure.

Art Unit: 1774

Aldefer teaches a printing sheet comprising an extruded microporous film having a **meshed network of interconnecting porous** from 35 to 95 percent void volume (content) containing **HDPE** at [0003]-[0005]. Such teaching provides the same (a) of Applicant's instant claim 1, including the open-cell structure. Aldefer's (a) is open-cell because the sheet is meshed and contains porous, which is equivalent to providing an open-cell structure. Moreover, Laney teaches open-celled structures or interconnecting voids are suitable for voided structures, as cited at col. 3, lines 10-14, which Aldefer teaches voided structures having interconnecting voids. Furthermore, Laney teaches the same purpose, solving the same problem of the Applicant by teaching the ink penetration property enhancement that open-celled, interconnecting voids provide. Therefore, the combination is valid, both (a) and (b) provide an open-cell structure with interconnecting voids. The Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). The Examiner thereby upholds this rejection.

Applicant contends that Laney does not cure the deficiency of Newberry and Schleinz directed (b) having porous and interconnecting voids. The Applicant appears to ignore the teaching Laney provides. Laney teaches the exact same technology Applicant is claiming. The Examiner sees no difference. Applicant further argues that Newberry, Schleinz, and Laney provide unexpected results. However, whether unexpected or not, the same materials and structures are provided by the prior art, thereby teaching the claimed invention.

Art Unit: 1774

Applicant further contends that Newberry does not teach open-celled voids. That Newberry generally states voids have closed cells, doesn't mean voids all have closed cells. Moreover, Laney is used to show voids can in fact have open cells to improve ink absorptivity, not Newberry, which solves the same problem as Applicant. Laney teaches a permeable surface imaging support containing microbeads in an ink receiving layer with a void space of at least 40% having interconnected or open-celled structure at col. 11, lines 6-13 for the purpose of providing improved ink absorption (same reason as Applicant).

Conclusion

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is (703) 305-3809. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays.

Art Unit: 1774

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (703) 308-0449. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Tamra L. Dicus
Examiner
Art Unit 1774

October 20, 2003

CYNTHIA H. KELLY
SUPERVISOR, PATENT EXAMINER
TECHNOLOGY CENTER 1700

